

Applicants: Arlindo L. Castelhana, et al.
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Amendments to the Claims

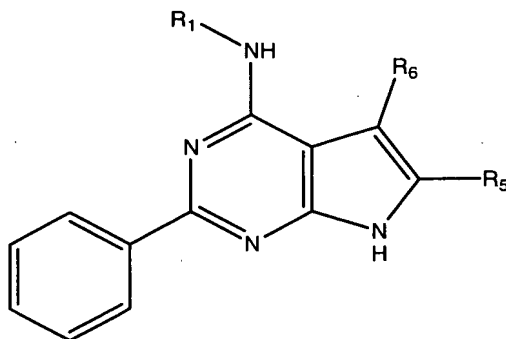
Please cancel claims 103-109 without prejudice to applicants' right to pursue the subject matter of these claims in this or a related application.

Minor amendments have been made. No new subject matter is introduced.

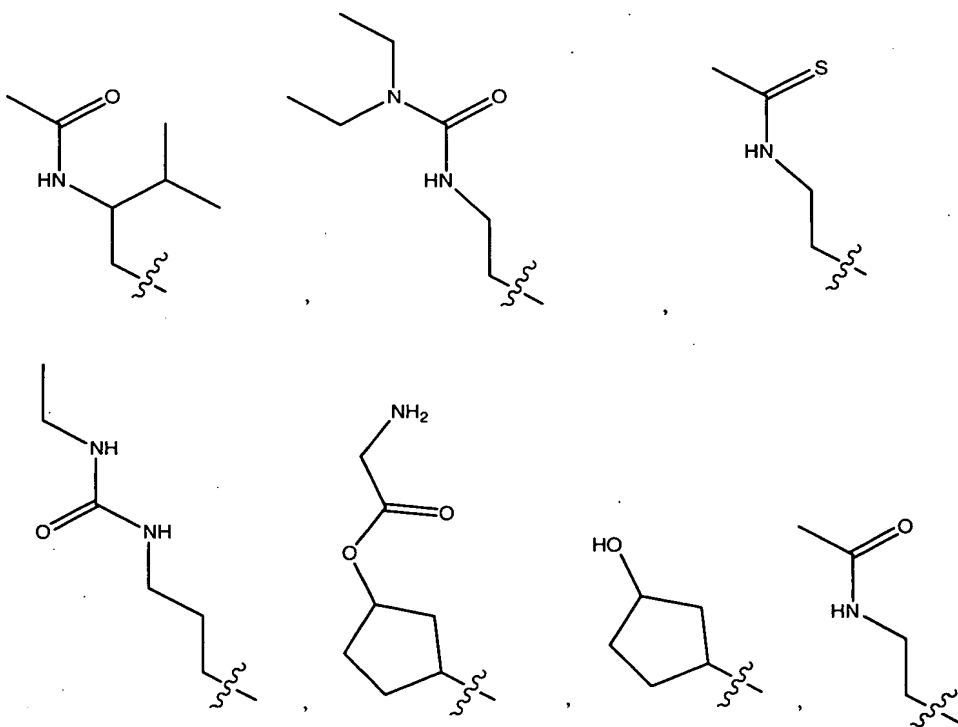
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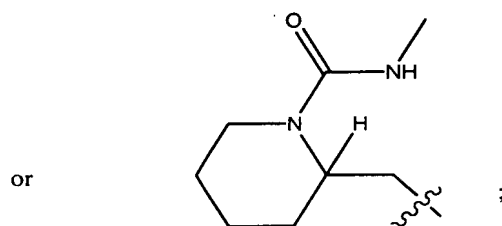
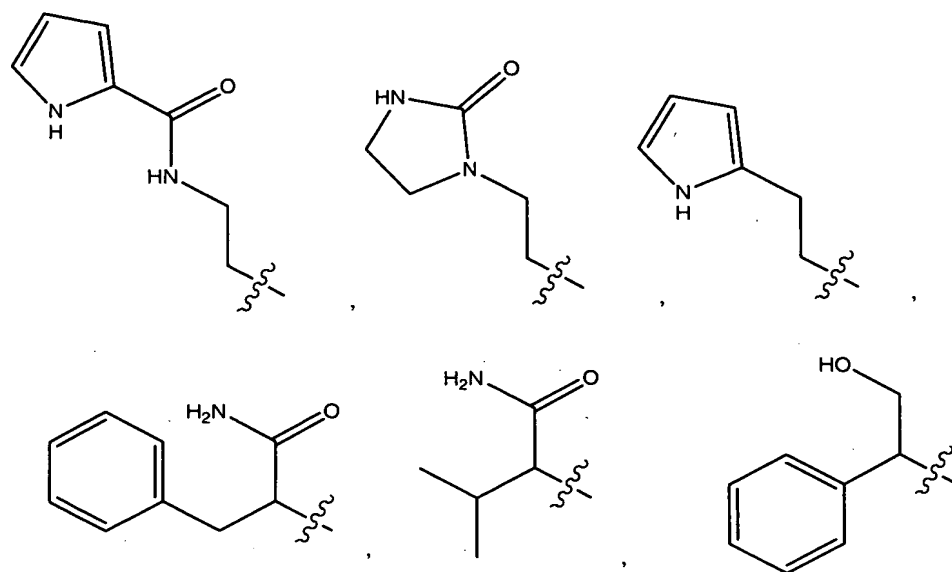
Claims 1-75. (Canceled)

76. (Previously presented) A compound having the structure:

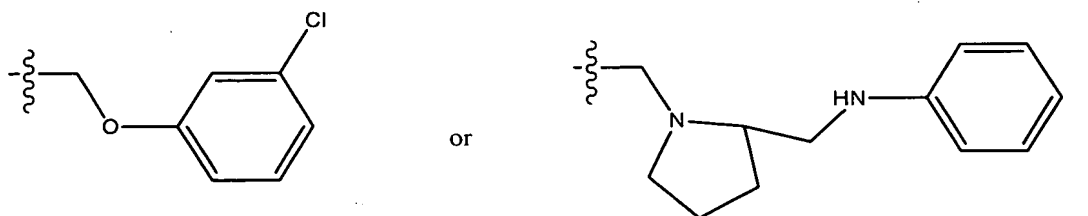


wherein R₁ is



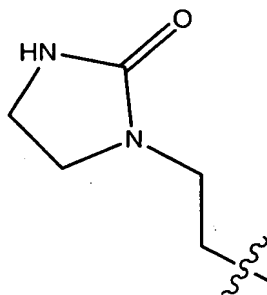


wherein R₅ is H, CH₃, phenyl,



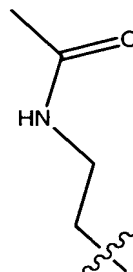
wherein R₆ is H or CH₃,

wherein when R1 is

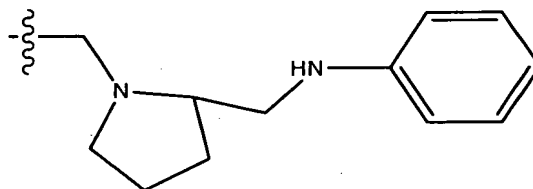


R5 is phenyl,

and wherein when R1 is

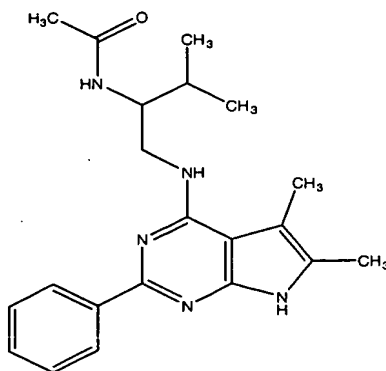


R5 is



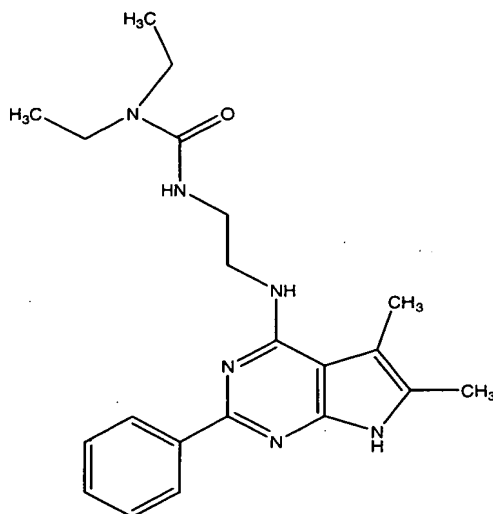
or a pharmaceutically acceptable salt thereof.

77. (Previously presented) The compound of claim 76, having the structure:

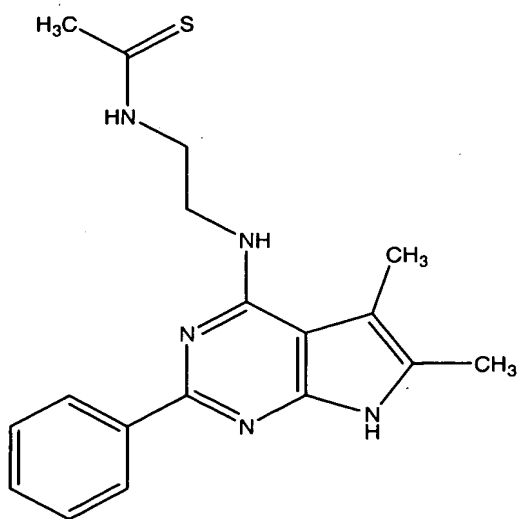


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78. (Previously presented) The compound of claim 76, having the structure:

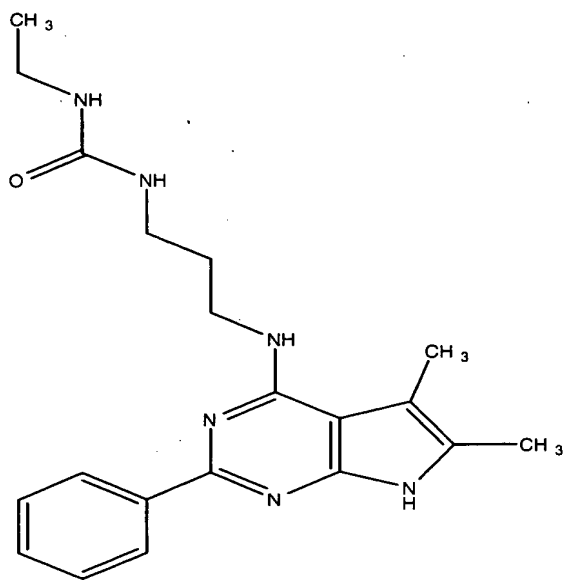


79. (Previously presented) The compound of claim 76, having the structure:

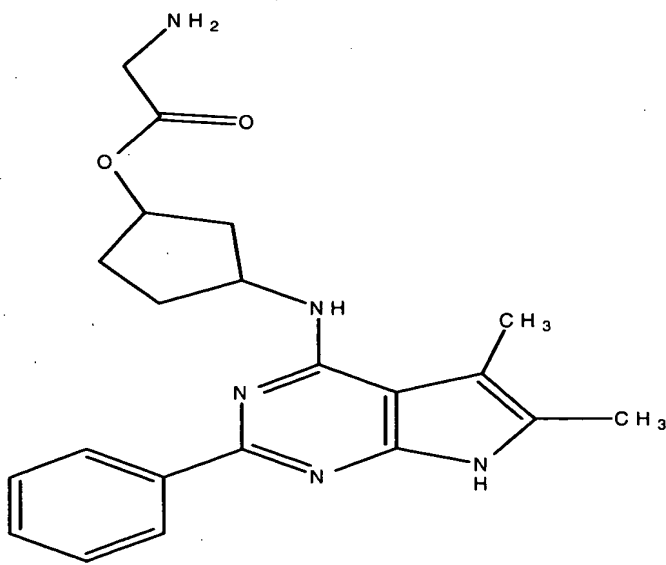


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80. (Previously presented) The compound of claim 76, having the structure:

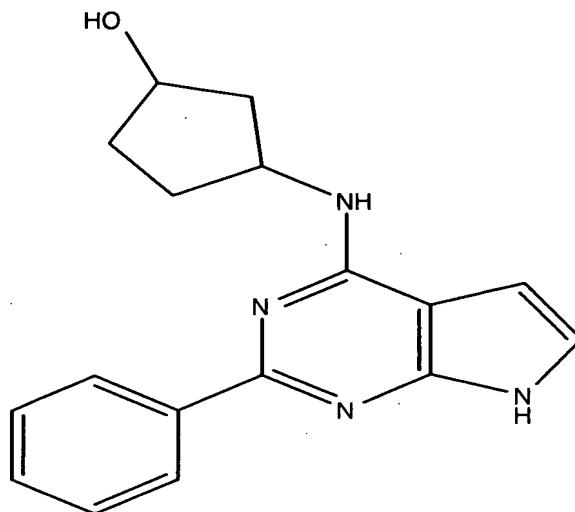


81. (Previously presented) The compound of claim 76, having the structure:

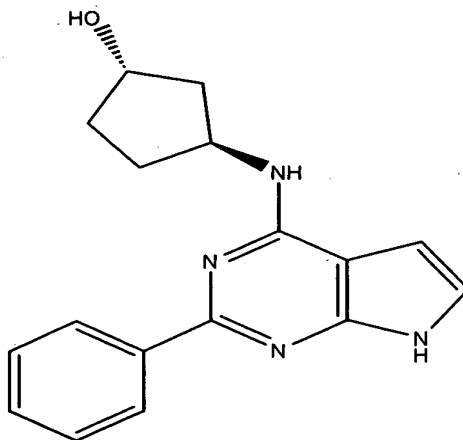


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82. (Previously presented) The compound of claim 76, having the structure:

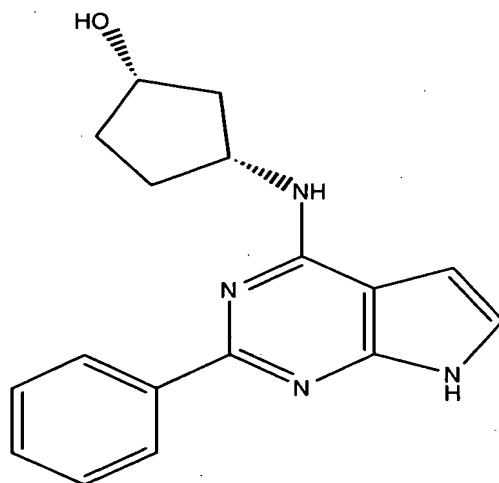


83. (Previously presented) The compound of claim 82, having the structure:

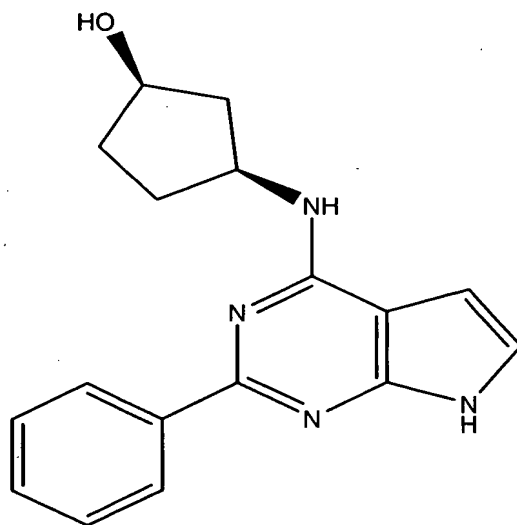


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84. (Previously presented) The compound of claim 82, having the structure:

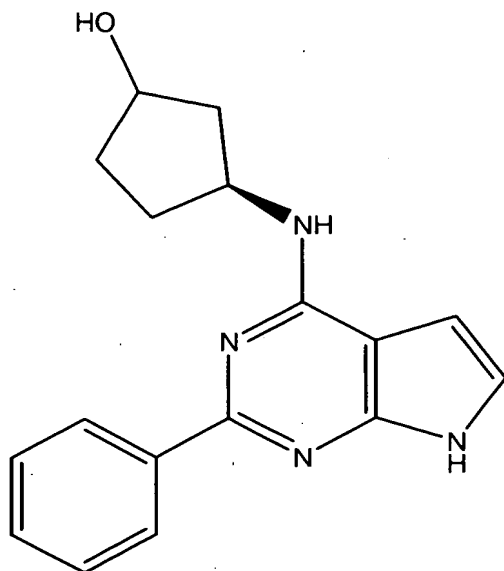


85. (Previously presented) The compound of claim 82, having the structure:

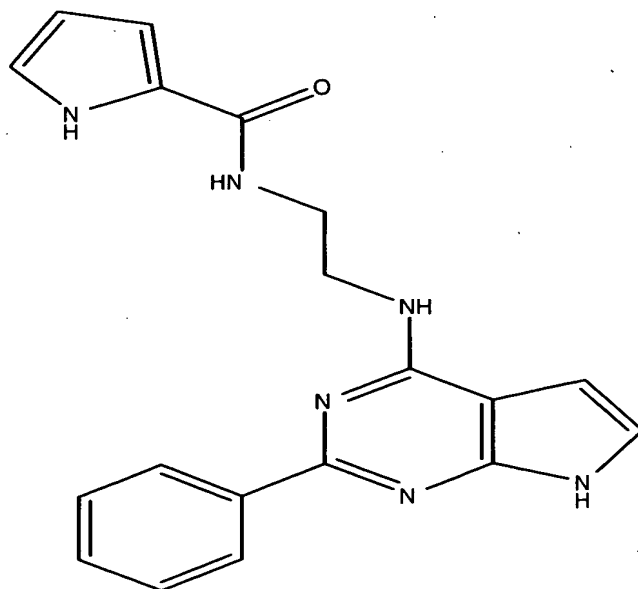


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86. (Previously presented) The compound of claim 82, having the structure:

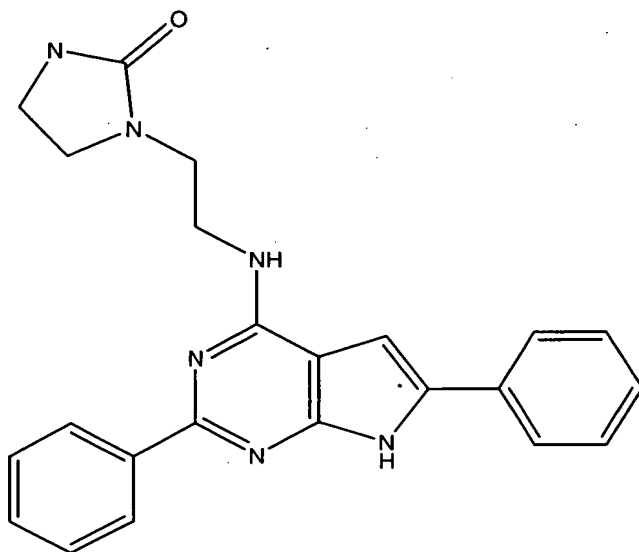


87. (Previously presented) The compound of claim 76, having the structure:

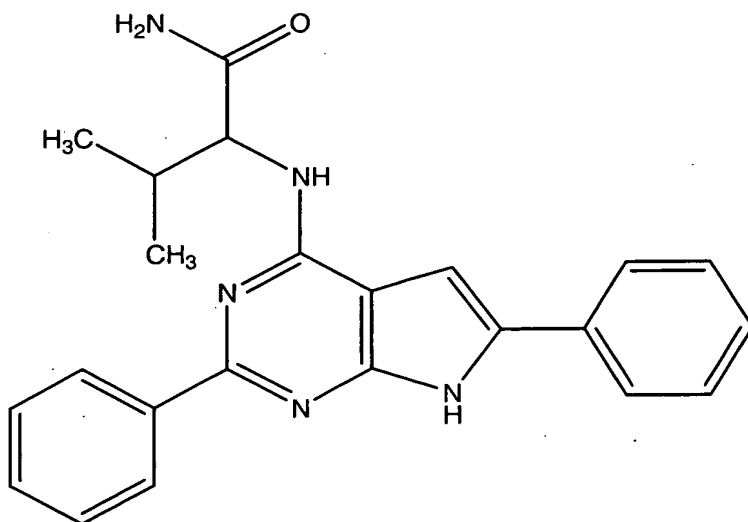


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88. (Previously presented) The compound of claim 76, having the structure:

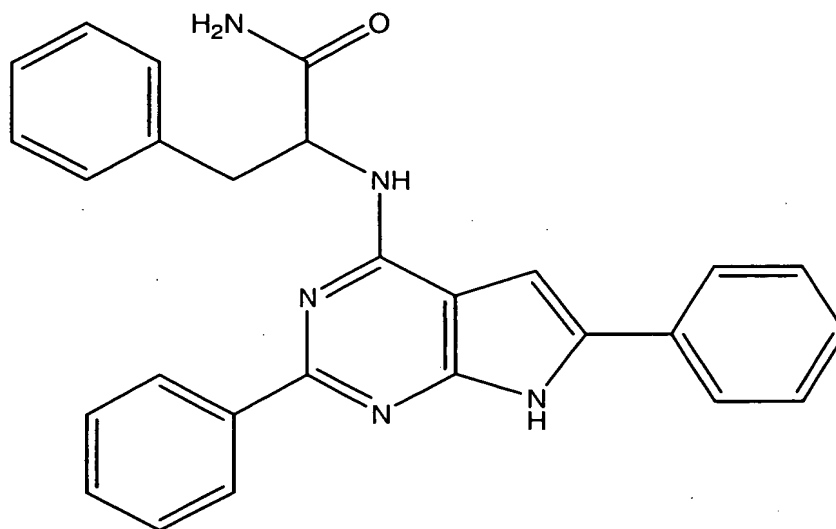


89. (Previously presented) The compound of claim 76, having the structure:

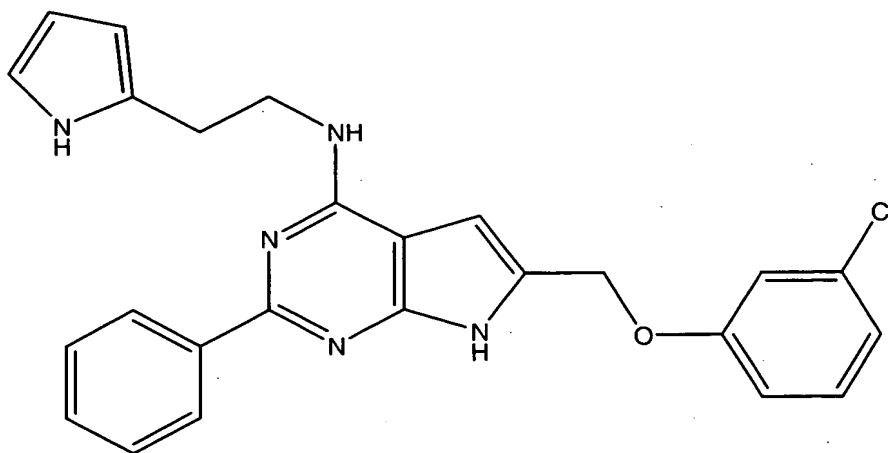


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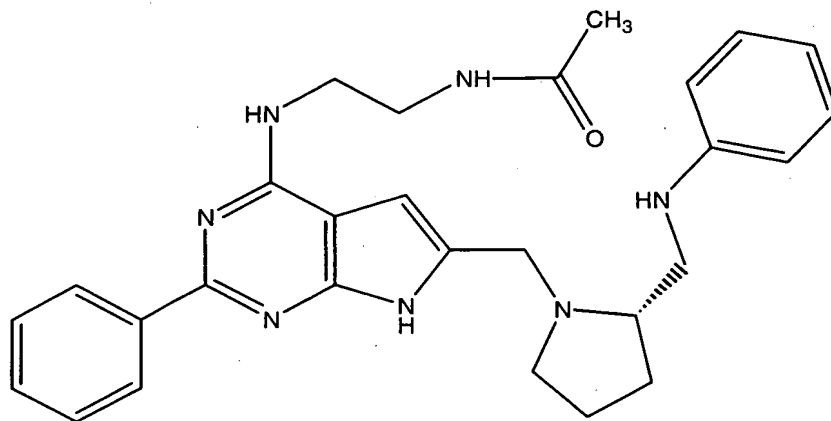
90. (Previously presented) The compound of claim 76, having the structure:



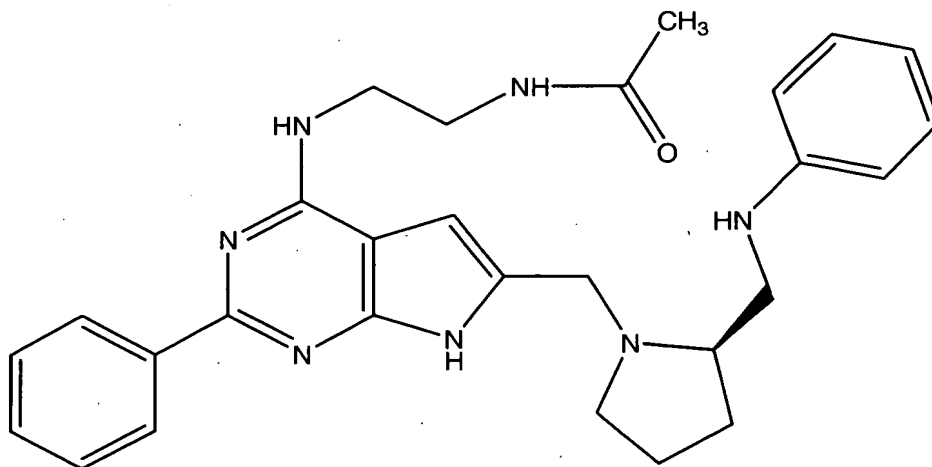
91. (Previously presented) The compound of claim 76, having the structure:



92. (Previously presented) The compound of claim 76, having the structure:

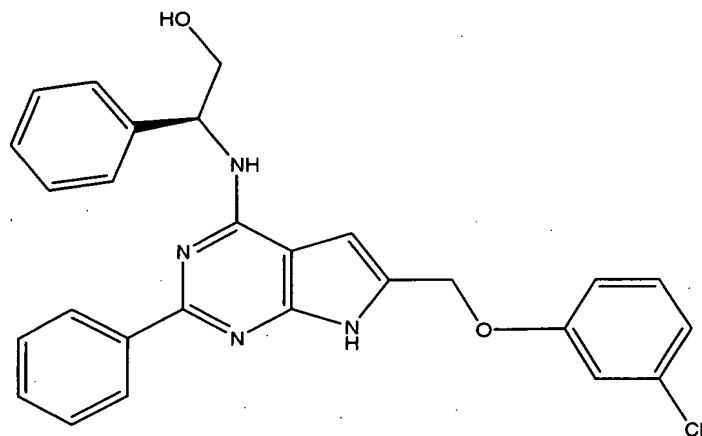


93. (Previously presented) The compound of claim 92, having the structure:

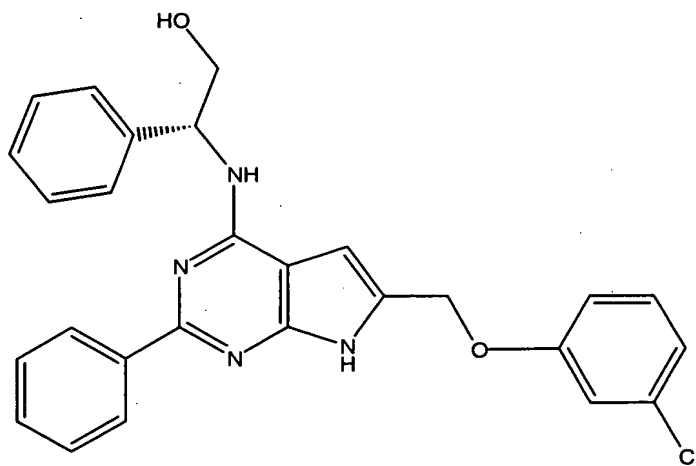


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94. (Previously presented) The compound of claim 76, having the structure:

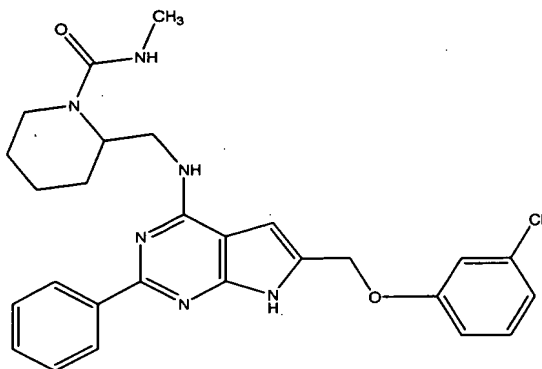


95. (Previously presented) The compound of claim 94, having the structure:

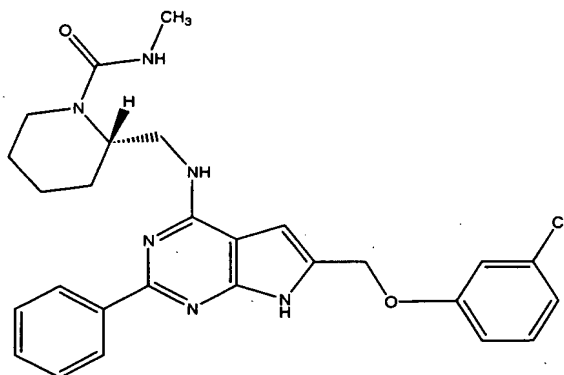


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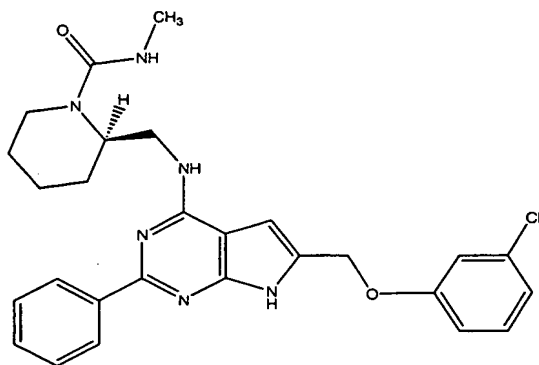
96. (Previously presented) The compound of claim 76, having the structure:



97. (Previously presented) The compound of claim 96, having the structure:

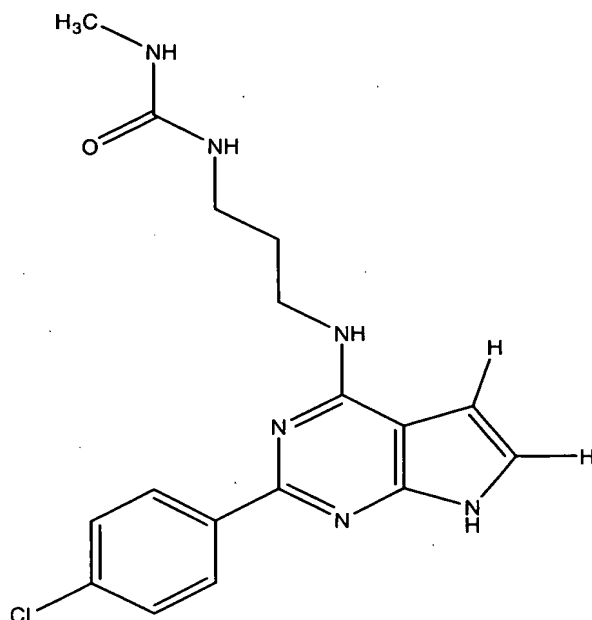


98. (Previously presented) The compound of claim 96, having the structure:



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99. (Previously presented) A compound having the structure:



100. (Previously presented) A method for treating a disease associated with an A₃ adenosine receptor in a subject in need of such treatment, comprising administering to the subject a therapeutically effective amount of the compound of claim 76 or 99 so as to thereby treat the disease associated with the A₃ adenosine receptor in the subject, wherein the disease associated with the A₃ adenosine receptor is myocardial ischemia, bronchitis, or bronchoconstriction.

101. (Previously presented) The method of claim 100, wherein the subject is a mammal.

102. (Previously presented) The method of claim 101, wherein the mammal is a human.

Claims 103-109. (Canceled)

110. (Previously presented) A method for inhibiting the activity of an A3 adenosine receptor in a cell which comprises contacting the cell with a compound of claim 76 or 99, so as to inhibit the activity of the A3 adenosine receptor.

Claims 111-113. (Canceled)

114. (Previously presented) A method for treating a respiratory disorder associated with an A3 adenosine receptor in a subject in need of such treatment, comprising administering to the subject a therapeutically effective amount of the compound of claim 76 or 99, so as to thereby treat the respiratory disorder in the subject, wherein the respiratory disorder is asthma, chronic obstructive pulmonary disease, allergic rhinitis or an upper respiratory disorder.

115. (Previously presented) The method of claim 114, wherein the subject is a human.

116. (Previously presented) A method for treating inflammation of the eye associated with an A3 adenosine receptor in a subject in need of such treatment, which comprises administering to the subject a therapeutically effective amount of the compound of claim 76 or 99 so as to thereby treat the inflammation of the eye in the subject.

117. (Previously presented) A method for treating a disease associated with an A3 adenosine receptor in a subject in need of such treatment, comprising administering to the subject a therapeutically effective amount of a compound of claim 76 or 99 so as to thereby treat the disease associated with the A3 adenosine receptor in the subject, wherein the disease associated with the A3 adenosine

receptor is associated with mast cell degranulation.

118. (Previously presented) The method of claim 117 wherein the subject is human.

119. (Previously presented) A method for treating a disease associated with an A3 adenosine receptor in a subject in need of such treatment, comprising administering to the subject a therapeutically effective amount of a compound of claim 76 or 99 so as to thereby treat the disease associated with the A3 adenosine receptor in the subject, wherein the disease associated with the A3 adenosine receptor is asthma, glaucoma, retinopathy, ocular ischemia, or macular degeneration.

120. (Previously presented) The method of claim 119, wherein the subject is human.

121. (Previously presented) The method of claim 119, wherein the disease is asthma.

122. (Previously presented) The method of claim 119, wherein the disease is glaucoma.

123. (Previously presented) A pharmaceutical composition comprising the compound of claim 76 or 99, and a prostaglandin agonist, $\beta 2$ agonist, or a muscarinic antagonist.

124. (Previously presented) A pharmaceutical composition comprising the compound of claim 76 or 99 and a pharmaceutically acceptable carrier.

125. (Canceled)

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126. (Canceled)

127. (Canceled)

128. (Previously presented) The pharmaceutical composition of claim 124, wherein said pharmaceutical composition is an ophthalmic formulation.

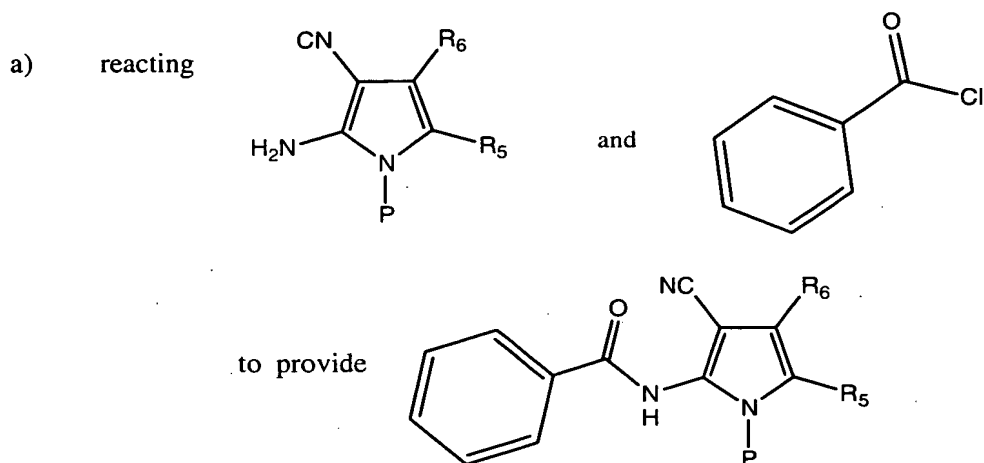
129. (Previously presented) The pharmaceutical composition of claim 124, wherein said pharmaceutical composition is an periocular, retrobulbar or intraocular injection formulation.

130. (Previously presented) The pharmaceutical composition of claim 124, wherein said pharmaceutical composition is a systemic formulation.

131. (Previously presented) The pharmaceutical composition of claim 124, wherein said pharmaceutical composition is a surgical irrigating solution.

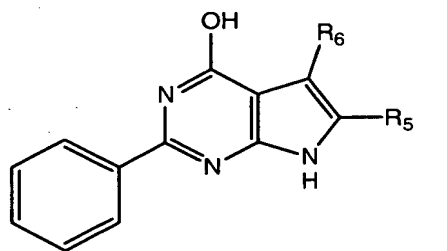
132. (Canceled)

133. (Previously presented) A method of preparing the compound of claim 76, comprising the steps of

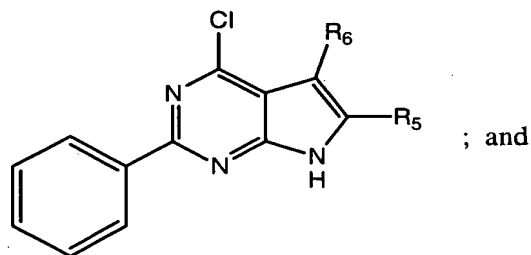


wherein P is a removable protecting group;

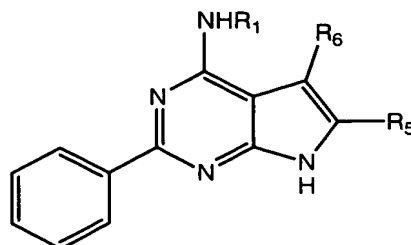
- b) treating the product of step a) with acid in the presence of solvent to provide



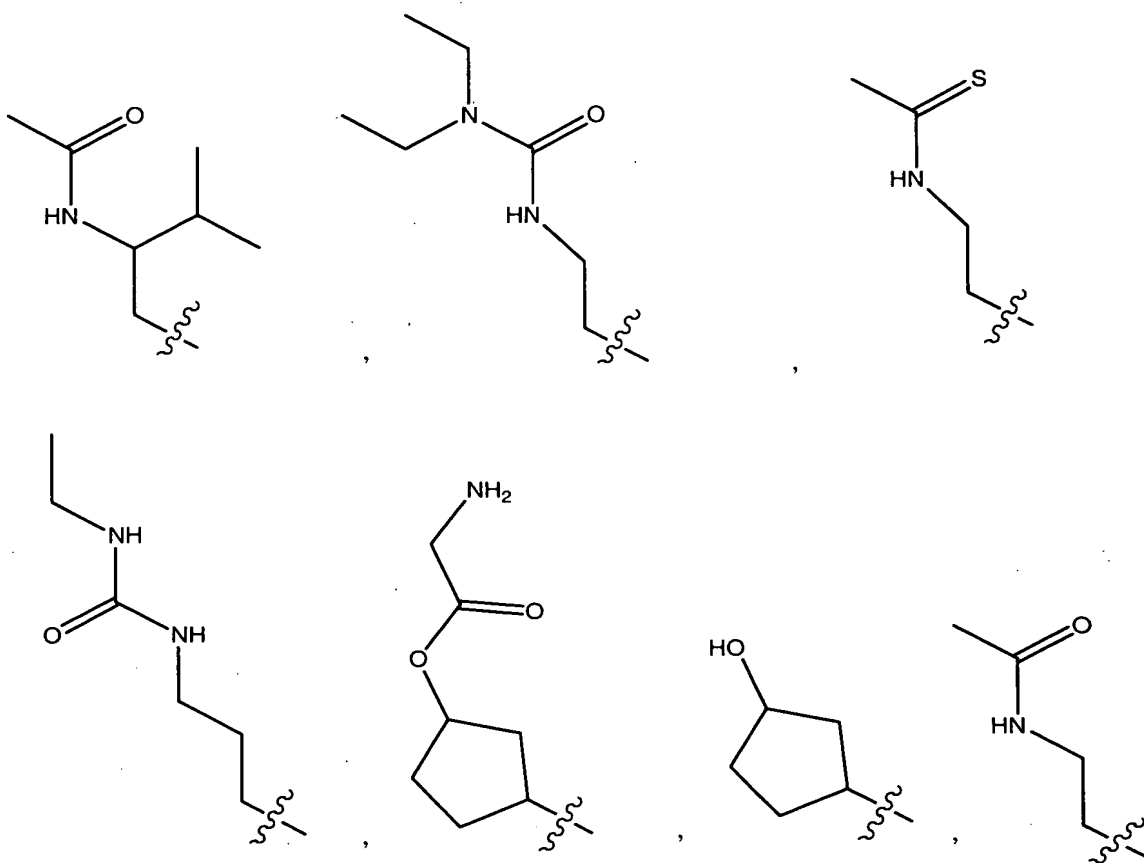
- c) treating the product of step b) with a chlorinating agent to provide



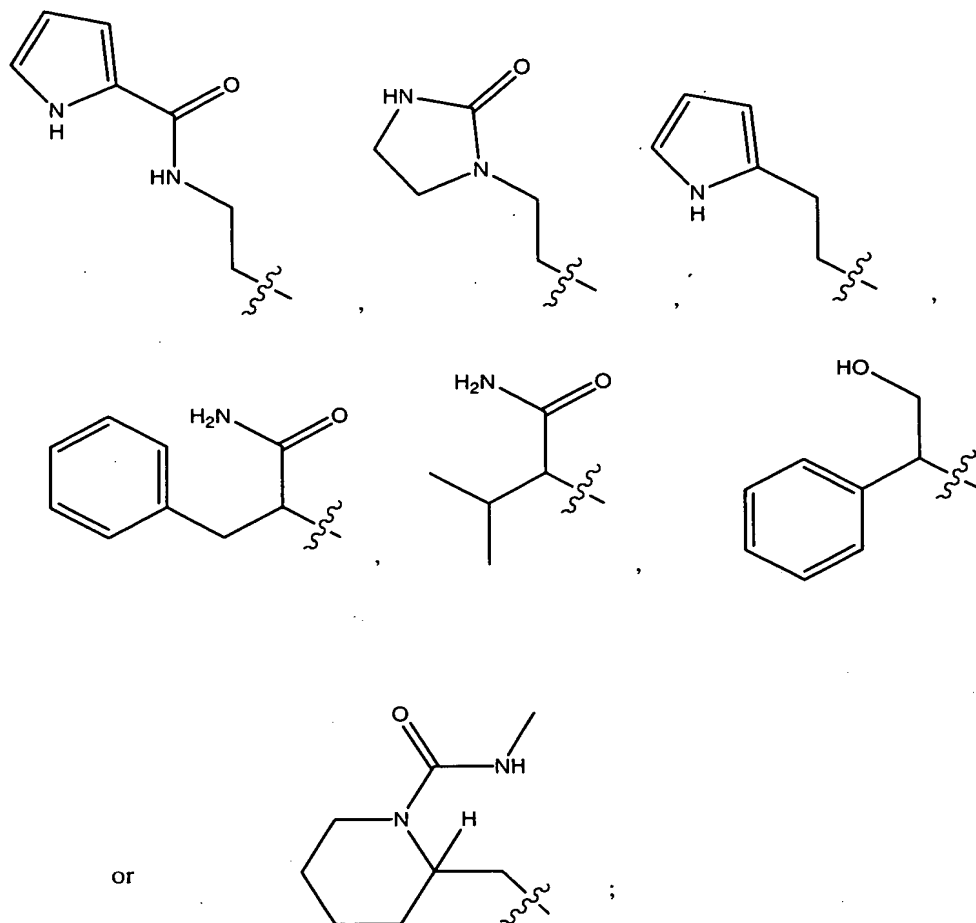
- d) treating the chlorinated product of step c) with NHR_1 to provide



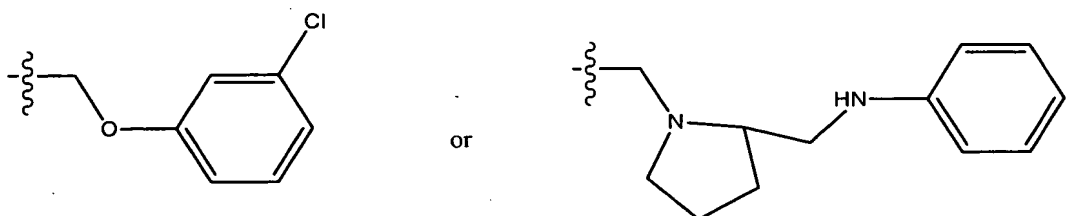
wherein R_1 is



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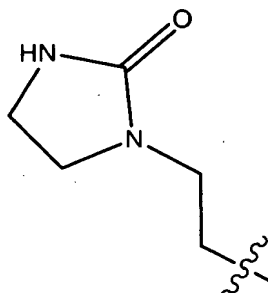


wherein R₅ is H, CH₃, phenyl,



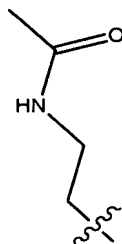
wherein R_6 is H or CH_3 ,

wherein when R1 is

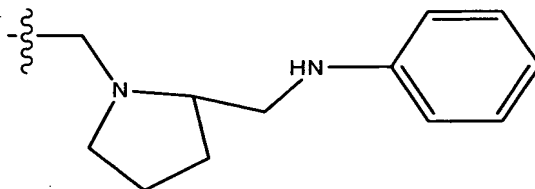


R_5 is phenyl,

and wherein when R1 is



R_5 is



134. (Previously presented) The method of claim 133, wherein the acid of step b) is sulfuric acid, the solvent of step b) is methanol, and the chlorinating agent of step c) is $POCl_3$.

135. (Previously presented) The method of claim 134, wherein step b) further comprises treating the compound with polyphosphoric acid.